



Department of the Air Force
HQ AEDC (AFMC)
Arnold AFB, TN 37389

Effective
9/26/02

Std. No.
A6

Safety, Health, and Environmental Standard

Title: User and Contractor Safety

Standard No.: A6

Effective Date: September 26, 2002

The provisions and requirements of this standard are mandatory for use by all AEDC personnel engaged in work tasks necessary to fulfill the AEDC mission. Please contact your safety, industrial health and/or environmental representative for clarification or questions regarding this standard.

Approved:



Contractor ESTHQ Services Director
AEDC



Air Force Functional Chief

Record of Revision

[illegible]



Department of the Air Force
HQ AEDC (AFMC)
Arnold AFB, TN 37389

Effective
9/26/02

Std. No.
A6

Safety, Health, and Environmental Standard

USER AND SUBCONTRACTOR SAFETY

1.0 INTRODUCTION/SCOPE/APPLICABILITY

It is the intent of this standard to select, contract with and oversee Users and Subcontractors with the same priority and emphasis on safety as we practice for other AEDC employees both government and contractor. This standard has two purposes: First, to provide guidelines to be used by management when selecting subcontractors and Second, to provide safety requirements to be implemented when users and subcontractors and their employees begin work at AEDC. The standard establishes responsibilities for ensuring AEDC users and subcontractors acknowledge and comply with the safety, health and environmental rules and regulations specified in their contract or agreement. This also includes rules and regulations unique to AEDC. This standard lists requirements and responsibilities for the support contractors to ensure activities of AEDC users and subcontractors are properly coordinated to prevent accidents.

2.0 BASIC HAZARDS/HUMAN FACTORS

Work at AEDC is normally not any more or less hazardous than similar work in any industrial setting. However, there are some peculiar hazards to the operation and maintenance of an Aeropropulsion Testing and Development facility. Accordingly, it may be necessary for contractors or subcontractors working at AEDC to observe some rules and precautions that take on greater importance due to the nature of testing activities. For example, violating the barrier tape or warning signs in a normal construction zone would be ill advised and could be harmful. However, violating the barrier tape or warning signs during a rocket motor test at AEDC could be extremely dangerous. Full compliance with all safety and health regulations and strict observance of all restrictions listed on each work clearance is imperative while operating at AEDC.

3.0 DEFINITIONS

Subcontractor — An organization employed by a contractor or the Air Force to do construction, maintenance, repair or other work at AEDC. There is no employment relationship, control or supervision of the subcontractor's employees by AEDC contractors.

Subcontractor Monitor — A person designated by a support contractor to ensure the work accomplished by the subcontractor meets the specifications of the contract. Also performs as liaison between the subcontractor and support contractors.

AEDC Contractor — A long-term contractor directly accountable to the Air Force for the AEDC mission.

User — An outside organization, including its employees, engaging in testing or research work at AEDC. There is no employment relationship, control or supervision of the user's employees by AEDC contractors. However, unsafe work practices and hazardous conditions will be identified and brought to the attention of both the user and the USAF if observed by contractor personnel.

4.0 REQUIREMENTS/RESPONSIBILITIES

4.1 Requirements

- 4.1.1 Work activities of users and their employees at AEDC are subject to AEDC's safety rules and regulations and must be coordinated by the appropriate AEDC contractor. If an immediately dangerous to life and health (IDLH) condition exists that is within the control of the user/subcontractor, then any person or group of persons may require the job, task, or project to be shutdown, and the hazard mitigated, controlled or eliminated. As a result of this, the contracting official, AEDC/SE, the project manager, and contractor safety must be immediately notified to insure compliance with federal, state, and client safety, health, and environmental requirements are met. The user/subcontractor is responsible for making any and all modifications and establishing work controls without cost to the government and shall use industrial safe work practices and procedures set forth in the statement of work(SOW), the contract, or other federal, state, or USAF guidance as applicable. At no time shall the lives of users, subcontractors, or other AEDC personnel be placed in jeopardy while conducting operations.
- 4.1.2 Work activities of subcontractors and their employees at AEDC are subject to the rules and regulations stated in their contract and in the supplement to this standard (Outside Construction Contractor Safety Program).
- 4.1.3 Subcontractors and their employees performing construction or service contracts with the U. S. Air Force or AEDC support contractors must complete the AEDC Outside Contractor Orientation program before performing work on AEDC.

4.2 PKP/Contractor Purchasing Responsibilities

- 4.2.1 Ensure that contracts and specifications for construction or performance type contracts contain the appropriate requirements and submittals as reflected in Annex A, Mandatory Documents/Submittals.
- 4.2.2 Conduct pre-performance/construction briefings upon the contract award for contracts in excess of \$10,000.
- 4.2.3 Provide a copy of the SOW to the contractor safety office for review and comment based on the scope of work.
- 4.2.4 Ensure contracts and specifications contain the requirement that all subcontractors and their employees complete the AEDC Outside Contractor Orientation program before starting work at AEDC.

4.3 Contractor Safety Responsibilities

- 4.3.1 During the design review phase of a project, determines the scope and depth of the safety and health requirements (submittals) for each contract.

NOTE: Contracts that do not entail a substantial amount of work or only involve simple tasks, may use the Subcontractor Pre-job Safety Checklist (Supplement, Appendix B) in lieu of the detailed Safety and Accident Prevention Plan (Supplement, Appendix A).
- 4.3.2 Briefs subcontractors on safety and health requirements for AEDC during the pre-performance/construction briefing. Has the subcontractor or his representative sign the briefing acknowledgment and gives him a copy of the acknowledgment and the Supplement.
- 4.3.3 Informs Security of location of contractor briefing. Presents AEDC Outside Contractor Orientation program to subcontractors and their employees upon their arrival at AEDC and before they have commenced work.

- 4.3.4 Monitors subcontractors for compliance with applicable safety and health rules and regulations. Advises on safety and health needs where required.

4.4 Security Responsibilities

- 4.4.1 Briefs subcontractors on security and traffic requirements for AEDC at the pre-performance/construction briefing. During check-in of users and subcontractors at the Pass and Registration office, provides representatives with appropriate chapters of the Installation Security Instruction, 31-101.
- 4.4.2 Notifies Contractor Safety upon a subcontractor's arrival at Pass and Registration for check-in and badging. Advises subcontractor of location for the contractor orientation.

4.5 Fire Protection

- 4.5.1 Briefs fire and emergency services during the pre-performance/construction briefing. Monitors subcontractor construction areas for fire prevention practices and issues welding permit when required.

4.6 Subcontractor Monitor Responsibilities

- 4.6.1 Coordinates any additional need for Safety and Health, Security and Traffic, or Fire indoctrination with the appropriate agency.
- 4.6.2 Coordinates subcontractor work activities with the appropriate area supervisor or building manager.
- 4.6.3 Assists the subcontractor in obtaining necessary work clearances and permits as required.

4.7 Support Contractor's Subcontractor Monitor

- 4.7.1 Reports subcontractor safety violations to Contractor Safety by identifying the subcontractor by name, location, and violation. If a violation presents imminent danger, takes immediate action to protect personnel and Air Force property.

5.0 REFERENCES

Annex A

Mandatory Documents/Submittals

The following documents are required to be submitted to the Air Force Contracting Officer or Contractor Contract Administrator prior to work being performed. Contract Administration will ensure that submittal items requiring approval are approved, in writing, by the Air Force or Contractor Safety Office and returned to the subcontractor before beginning work specified in a contract.

Subcontractor's Environmental, Health and Safety Plan to include a Fall Protection Plan, Excavation Protection Plan, Confined Space and LOTO plans or procedures and personnel training policies. (Approval)

Hazard Communication Plan (Information)

Material Safety Data Sheets (Approval)

Information must contain:

- Identity of the product
- Manufacturer's name and address
- Amount of material to be stored on site
- Location of Material Safety Data Sheets
- Subcontractor's company or business name
- Point of contact on the job
- Location of contract site

In addition, any subcontractor generating hazardous waste must coordinate with the Hazardous Waste Operations Group, ext. 4310, before the generation of the waste.

Training records of personnel required to wear respirators (Information)

Certificates of training for personnel removing or disposing of hazardous waste (Information)

Work Procedure (Approval)

Job Safety Analysis (Information)

Tool Box Safety Meeting Minutes (Information)

Accident Reports and Investigations (Information)

Load Testing Data/Certification (Information)

OSHA/TOSHA Inspections and Citations within the past five years (Information)

Fall Protection Systems Shop Drawings (Information)

Soil Analysis Data for Excavations (Information)

Shoring Systems Shop Drawings (Information)

Building demolition plan as accomplished by a registered professional engineer (Approval)

Procedures and Job Safety Analysis for all high risk tasks (Approval)

Procedures for disposing of waste, scrap and excess materials (Approval)

Procedures for work involving transportation or disposal of hazardous waste (Approval)

Wastewater Discharge Request (Approval). Contact Water Quality, ext. 3625, to obtain request forms before discharging wastewater to surface waters or to land.

OUTSIDE CONSTRUCTION CONTRACTOR SAFETY PROGRAM

Supplement I to AEDC Safety, Health, and Environmental Standard A6



September 2002

Table of Contents

	Page
INTRODUCTION.....	02
RESPONSIBILITIES.....	02
Construction Projects	02
Construction Contractors.....	02
Construction or Specialty Subcontractors.....	02
Safety Plans	02
Prescribed Standards	03
General Requirements	03
Open Trench Barriers	04
Excavation and Trench Shoring.....	04
Confined Spaces.....	05
Fire Safety	05
Work Clearances	05
Electrical Utilities	05
Working With Ionizing Radiation	06
Hazardous Materials	06
IMMINENT DANGER PROCEDURES.....	06
ACCIDENTS (MISHAPS)	07
Emergency Assistance.....	07
Immediate Notification.....	07
Mishap Investigation	07
TRAFFIC SAFETY	07
Safety Restraint Systems (Seatbelts)	07
Crosswalks	08
Traffic Control.....	08
Passengers.....	08
Animals.....	08
Speed Limits	08
Weather.....	08
WASTE DISPOSAL	08
Solid Waste.....	08
Hazardous Wastes	09
Wastewater.....	09
Spills	09
APPENDIX A - Example of Outside Contractor Safety Plan	10
APPENDIX B Contractor Prejob Checklist.....	23

OUTSIDE CONSTRUCTION CONTRACTOR SAFETY PROGRAM

Supplement to AEDC Safety, Health, and Environmental Standard A6, User and Subcontractor Safety)

INTRODUCTION

This supplement describes the Arnold Engineering and Development Center (AEDC) Outside Construction Contractor Safety Program. Contractors must conduct their activities in a manner acceptable to AEDC and in accordance with the prescribed standards listed in the contract. Where the word "contractor" is used in this Supplement, it will also be understood to include subcontractors to the support contractors.

RESPONSIBILITIES

· Construction Projects

The Air Force and/or the Contractor supervises the construction phase of most AEDC construction projects. An Air Force Project Engineer and Contractor Construction Monitor are assigned to each new project and are responsible for ensuring that the contractor fulfills the responsibilities specified by the contract.

· Construction Contractors

Contractors are responsible for the safety of their personnel and for fulfilling other obligations specified by the contract. Contractor superintendents are responsible for eliminating hazardous conditions, monitoring their personnel for safe work practices, providing safe equipment, conducting safety meetings and training, and providing periodic safety reports. Employees are to be made aware of workplace hazards and are encouraged to promptly report any unsafe conditions to their contractor superintendent.

· Construction or Specialty Subcontractors

On projects where the general construction (prime) contractor has sub-contracted portions of work to other construction or specialty contractors, it is the responsibility of the general construction contractor to ensure that any subcontractor is made aware of and adheres to the responsibilities specified in the Construction Contractors section above. The general construction contractor must consider the type work being done when completing the Contractor Safety Plan or Contractor Prejob Checklist-

· Safety Plans

A written Safety Plan is required for major projects. Included but not limited to:

- Projects that cost over \$250,000.
- Projects that have a potential for permanent disabling injuries or result in equipment damage of \$10,000 or greater.
- Projects that involve demolition of major structures.

A sample of the Safety, Accident Prevention, and Fire Protection Plan (Appendix A) and checklist (Appendix B) are contained in the appendixes of this document. They are generic in nature, cover areas common in most efforts, and should not be assumed to be all inclusive. Submitted Safety Program Plan and/or checklist must cover safety, accident prevention, and fire protection areas that affect the work to be accomplished.

Each safety plan must reflect the type of construction safety required. Each contractor must prepare the safety plan with concern for Occupational Safety and Health Administration (OSHA) requirements and good safety practices (see Appendix A for a sample format). Before the execution phase of the project a determination of the level of safety programming will be determined by the support contractor safety office. Other projects may satisfy this requirement by submitting a Contractor Prejob Checklist (see Appendix B). The safety plan or checklist must be accepted by Air Force or Contractor Safety and either the Project Engineer or Construction Monitor before work begins.

- **Prescribed Standards**

A safe workplace must be maintained in accordance with the requirements of the prescribed standards listed in the contract. Where differences exist between prescribed standards and codes, the one affording the greatest protection will govern.

- **General Requirements**

The following requirements are of special importance and should be coordinated with the Construction Monitor:

- Emergency telephone numbers for AEDC Medical and Fire Departments, AEDC Extension 911, must be posted at each site (or at a central location).
- Contractors must provide for orientation and training of employees in accordance with 29 CFR 1926.21.
- Contractors must comply with housekeeping requirements (29 CFR 1926.25).
- Contractors must comply with all signs and tag requirements (29 CFR 1926.200).
- Contractors must ensure use of all necessary personal protective equipment (29 CFR 1926.28).
- Contractors must provide ground-fault circuit interrupters on all single-phase 15- and 20-ampere receptacle outlets on all construction sites or institute and document an assured grounding program (29 CFR 1926.400).
- Locking and tagging will be accomplished in accordance with AEDC Safety Standard B2, Lockout Tagout - LOTO.
- All employees must be provided fall protection devices when working from heights in accordance with 29 CFR 1926.104.

- All employees will be provided copies of all Material Safety Data Sheets (MSDS) for all hazardous materials on the job site and a copy of their written Hazard Communication Program.

· **Open Trench Barriers**

Groups engaged in construction and maintenance work requiring open trenches or excavations must provide protection for pedestrians, bicyclists, and motor vehicles. Where possible, these areas should be backfilled immediately or provided with a continuous covering. Where this is not possible, barriers must be provided to warn personnel of the danger areas. Construction personnel must become aware of traffic patterns and provide walkways adjacent to occupied buildings, main thoroughfares, intersections, and at other recognized locations where pedestrian traffic occurs.

A construction barrier must meet the following criteria:

- Type II barricades, as defined in American National Standards Institute (ANSI) Standard D-6.1, must be positioned at 3-m (10-ft.) intervals on each side of the trench. Spacing on each side of the trench should alternate to show barricades at 1.5-m (5-ft.) intervals.
- Each barricade should be positioned at least 0.6 m (2 ft.) away from the opening.
- Each barricade that will be in place during darkness must be equipped with a yellow flasher at least 20 cm (8 in.) in diameter. Flashers should be directed toward the outside of the excavation or perpendicular to the path of expected travel.
- Where continuous solid barriers are not provided, interconnecting ropes or special yellow plastic strip tape must be strung between the barricades.
- Crossing points are to be identified in construction drawings and sketches so that walkways and bridges equipped with standard guard rails (or equivalent) can be provided. Adequate lighting must be furnished at the crossing points.
- Wherever vehicle traffic will cross trenching operations, metal plate coverings must be installed to support the traffic.

· **Excavation and Trench Shoring**

Trench shoring must conform to 29 CFR 1926, Subpart P.

Before beginning any excavation that is 5 feet or more deep, the contractor must submit to the Construction Monitor or Project Engineer a detailed plan showing the design of shoring, bracing, sloping, or other provisions to be made to protect workers from the hazard of caving ground during the excavation. The proposed plan must comply with the standards established by 29 CFR 1926 (Federal OSHA Construction Safety Standards). If the detailed plan varies from such shoring system standards, it must be prepared by a registered civil or structural engineer whose name and registration number must be indicated on the drawing. If a dispute arises as to whether the plan will be prepared by a registered civil or structural engineer, AEDC's determination of the matter will be final.

The review or approval of any plan showing the design of shoring, bracing, sloping, or other provisions for worker protection will not relieve contractors from their obligation to comply with 29 CFR 1926 for the design and construction of such protective work.

• **Confined Spaces**

If a contractor employee is to enter a confined space (such as a tank, vault, hold, manhole, or ducting), the Construction Monitor or Project Engineer must provide the contractor with a copy of the AEDC Safety Standard B5, Confined Spaces, available from Contractor Safety. Any such entry must be in accordance with the requirements of this standard. The Construction Monitor must also be notified at least 24 hours before entry is made.

The Construction Monitor must provide assistance to the contractor in securing from the person in charge of the confined space pertinent information on all hazards in the confined space and an entry procedure or permit to provide safe entry. The contractor, confined space supervisor, and Construction Monitor must ensure all requirements of the procedure or permit are complied with before entry. Contractors are responsible for training in, and certification of, its employees both entrants and attendants) as required by 29 CFR 1910.146.

Contractors will provide the appropriate atmospheric monitoring equipment for entering confined spaces.

• **Fire Safety**

The contractor must obtain USAF Welding, Cutting, and Brazing Permit (AF Form 592) from the AEDC Fire Department before using an open flame or electric arc and must not start open flame or electric arc operations until the permit has been posted.

• **Work Clearances**

A Work Clearance (Form GC-313/AEDC Safety Standard B1) must be obtained from the Area Supervisor before the start of any work. The Construction Monitor or Project Manager will assist the outside contractor in obtaining the work clearance. An AF Form 103 (Base Civil Engineering Work Clearance Request) also called a "digging permit," must be obtained from Facilities Engineering before excavation of any type within the AEDC Reservation.

• **Electrical Utilities**

When construction activities involve installing new or remodeled electrical utilities, the contractors must contact the Construction Monitor or Project Engineer to arrange for a utility outage before these utilities are tied into existing AEDC utilities. Power Control will identify the circuits and circuit breakers involved. The contractor representative may then open those circuit breakers that are 600 volts or less and lockout-and-tag them (see AEDC Safety Standard B2) before the tie-in is made. Circuit breakers for AEDC facilities that control circuits over 600 volts must be opened, locked out and tagged, and grounded by AEDC personnel. When new utilities are ready to be energized, AEDC personnel must visually inspect and test all electrical equipment that generates at a potential of over 600 volts before it is placed in service. The contractor will join with the Construction Monitor or Project Engineer to witness the switching and grounding work performed by AEDC employees.

Where new construction projects adjoin, or are associated with AEDC controlled utilities but do not affect AEDC personnel or activities, the Construction Monitor or Project Engineer may request Power Control to lockout-and-tag certain sources of power (electrical and mechanical) for the safety of contractor personnel.

All lockout-and-tag operations must conform to AEDC Safety Standard B2.

Per 29 CFR 1910.147, all equipment must be locked out or tagged out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. AEDC lockout/tagout procedures are established in AEDC Safety Standard B2. The contractor must coordinate lockout/tagout procedures with the Project Manager to ensure those procedures are compatible with AEDC requirements. AEDC support contractors and construction contractors must observe each other's lockout/tagout program.

All branch circuits must be properly identified and safely terminated so as not to cause an electrical shock hazard.

- **Working With Ionizing Radiation**

When a contractor brings an ionizing radiation source on site or when contractor employees work in designated radiation areas, the contractor must notify Contractor Safety one working day before the start of the job.

All ionizing radiation radiography work must comply with State Regulations for Protection Against Radiation (SRPAR) regarding radiation control regulations.

When contractor personnel are asked to work in designated radiation areas, Contractor Safety will provide a briefing regarding radiation safety requirements.

- **Hazardous Materials**

A list of hazardous materials used on the job site must be provided to the Construction Monitor before receipt of materials on the site. MSDS for all hazardous materials on site must be readily accessible and employees must be trained in hazards associated with these materials.

IMMINENT DANGER PROCEDURES

FAR Clause 52.236-13, Accident Prevention, applies to all construction activities. This procedure will be used where imminent-danger situations exist or where significant damage to equipment or property could occur if the operation continued. When a notice to stop work is issued under imminent danger procedures, only those areas of the construction project immediately involved in the hazardous situation are to be included within the order. If contractor personnel are involved in an imminent-danger situation, the Project Engineer, the Construction Monitor, or any AEDC safety representative must instruct the contractor to stop the unsafe practice and take corrective action. After issuing any such order, the Project Engineer, Construction Monitor, or safety representative must immediately notify the Contracting Officer, who will issue the formal stop-work notice in accordance with the aforementioned clause. AEDC may investigate any practice or situation that prompted the issuance of an imminent-danger stop work order. A stop-work order issued under the authority of imminent danger procedures differs from a suspension of

work issued under the authority of FAR Clause 52.212-12, Suspension of Work. The contractor will not be entitled to any equitable adjustment for a valid stop-work notice issued under the authority of FAR Clause 52.236-13.

ACCIDENTS (MISHAPS)

- **Emergency Assistance**

Contractors are responsible for providing first aid and medical assistance if their employees are injured or become ill. If emergency assistance or transportation is required because of the severity of the injury or illness, AEDC ambulance and emergency response personnel may be called. The emergency phone number, AEDC extension 911, must be posted at the work site, and the contractor should give this information to all employees concerned. All mishaps must be reported to the Project Engineer or Construction Monitor within 24 hours.

- **Immediate Notification**

The contractor must notify the Contracting Officer, Project Engineer, or Construction Monitor immediately if an mishap occurs that involves:

- A fatality or possible fatality.
- An injury or illness that may produce permanent or prolong disablement.
- Injury or illness to several employees in the same mishap.
- Anything that could cause concern to AEDC employees or the public or that could have a significant effect on the environment.

The contractor must cease all work at the site of the mishap until the Project Engineer, Construction Monitor, and the AEDC Contractor Safety Representative for the area jointly provide additional instructions.

The site of an accident involving serious injury or fatality must be isolated and access controlled until the area is release by an AEDC authority. The area must remain intact until a mishap investigation has been completed.

- **Mishap Investigation**

The Contracting Officer, Air Force Safety Office (AEDC/SE), and AEDC Contractor Safety must jointly determine the extent of the mishap and the mechanism for handling any required investigation.

TRAFFIC SAFETY

AEDC traffic rules and regulations for the most part follow the Tennessee Laws relating to motor vehicles. Some unique regulations pertaining to AEDC and the U.S. Air Force follow:

- **Safety Restraint Systems (Seat Belts)** are required to be used by all vehicle operators and passengers where installed. This includes the rear seats of automobiles. Also, all construction and earth moving vehicles and equipment that have roll-over protective systems (ROPS) must be equipped with seat belts.

- **Crosswalks**--Vehicle operators are required to stop for pedestrians in crosswalks. Pedestrians are not to enter a crosswalk on the side of the street where a vehicle is approaching if the vehicle does not have time or distance to safely stop.
- **Traffic Control**--Traffic control and routes are as indicated on the construction drawings and outlined in the written instructions. Sketches for the construction of certain detours in areas not indicated on the drawings will be submitted to AEDC Project Engineer or Construction Monitor for approval. Personnel are directed to become familiar with these details.

Required safety, fire, instructional, and traffic signs will be posted and obeyed. They will not be removed until their removal is approved by the Project Engineer or Construction Monitor.

All flag men will wear blaze orange vests. Traffic flaggers will be trained in proper visual signal usage as required by ANSI C.6-1

- **Passengers** can only be transported in the cargo bed of pickup trucks or stake bed trucks when they are seated on the floor of the cargo bed against the cab and the tail gate is closed and/or side attachments are installed.
- **Animals**--Be alert for deer and wild fowl when operating vehicles within the AEDC Reservation.
- **Speed Limits** on AEDC are 35 MPH unless posted otherwise. Speed limit in any parking lot must not exceed 10MPH. Speed limit in Arnold Village is 20 MPH.
- **Weather**—Head lights must be turned on whenever weather conditions require windshield wiper continuous use. Use low beam head lights during fog or snow. Do not use parking lights except when parked. (If visibility is low enough for lights, headlights should be used.)

WASTE DISPOSAL

- **Solid Waste**

Dumpsters: Dumpsters are available for solid wastes and garbage. These containers are emptied into a sanitary landfill and no free liquids or Resource

Conservation and Recovery Act (RCRA) Subtitle C hazardous wastes are allowed. These are intended for trash, garbage, and food wastes, and other types of household wastes. If they become full, they can be emptied on request with advance notice. Otherwise, they will be emptied on a routine schedule.

Construction Landfill: The landfill near the Airfield along Sixth Street/Avenue J has been permitted by the Tennessee Department of Environment and Conservation as a Class IV Disposal Facility for inert construction/demolition wastes. No sanitary garbage may be placed into this area and no free liquids are allowed. Any material that is an RCRA Subtitle hazardous waste is forbidden.

- **Hazardous Wastes** -- All wastes generated at AEDC that are RCRA Subtitle C hazardous must be processed through the AEDC system. The individual generator is responsible for identifying his waste, segregating it from other wastes, and placing it into the proper container. Instructions will be provided for each generator for proper labeling of the containers and processing the required paperwork that must accompany each container. The generator is responsible for transport of each container to the assigned accumulation point and must coordinate with the accumulation point manager. It is highly recommended that each generator contact the appropriate environmental office before beginning to generate waste.

- **Wastewater**

Sewage Treatment Plant (STP): The STP is designed solely for domestic sewage and nothing else may be discharged into the sanitary sewer system without written advance authorization from Water Quality Management section. The authorization will include any pre-treatment necessary before discharge into the sanitary sewer system.

Stormwater: Measures must be used to minimize stormwater run-on and run-off. Nothing other than rain may be discharged into drainage ditches without authorization from the Water Quality Management section. Measures must be actively taken to minimize erosion and maintain stream quality.

- **Spills**--All spills must be reported to the Operations Center at extension 7688, either directly or through the contract monitoring personnel. If the spill is beyond the capability of immediate cleanup, assistance can be obtained through the Ops Center upon request. A spill is defined as a material that escapes its designed containment and enters into the environment, either through the air, surface water, ground water, or soil.

APPENDIX A

EXAMPLE

OUTSIDE CONTRACTOR SAFETY PLAN

SAFETY, ACCIDENT PREVENTION, AND

FIRE PROTECTION PLAN

FOR

CONTRACT NO. _____

SAFETY, ACCIDENT PREVENTION, AND FIRE PROTECTION PLAN**Table of Contents**

POLICY STATEMENT	11
PURPOSE	11
SAFETY RESPONSIBILITIES.....	11
EMPLOYEE TRAINING	11
Bulletin Board	11
Safety Meetings	12
MEDICAL SUPPLIES AND ASSISTANCE.....	12
First Aid Stations	12
Emergency Phone Numbers	12
CONTROLLING CONSTRUCTION AREAS.....	12
PERSONAL PROTECTIVE EQUIPMENT	12
EQUIPMENT SAFETY	13
Motor Vehicles	13
Heavy Equipment	13
Hand Tools	13
FIRE PREVENTION.....	13
Hot Work Operations	13
Smoking	14
Electrical Sources	14
Fire Alarm Reporting	14
Access for Fire Fighting	14
Fire Extinguishers	14
SANITATION AND INDUSTRIAL HYGIENE	14
ACCIDENT REPORTING	15
GENERAL AND SPECIAL INSTRUCTIONS.....	15
General Instructions	15
Personal Protective Equipment	16
Ladders	17
Scaffolding.....	17
Machinery and Vehicles	17
Welding and Cutting – General	19
Arc Welding.....	19
Oxygen/Acetylene Welding and Cutting.....	20
Excavation, Trenching, and Shoring	21
Fall Protection	21
PRESCRIBED CODES, STANDARDS	21

SAFETY, ACCIDENT PREVENTION, AND FIRE PREVENTION PLAN

POLICY STATEMENT

A safe and healthful working environment is provided for all personnel through proper training, inspection, guidance, and adherence to safety codes and standards. All work is done in a safe manner. Safety is a management responsibility. To prevent injuries, illnesses, accidental fires, and property damage, all supervisory personnel must demonstrate the ability to recognize hazards and take necessary steps to eliminate existing and potential hazards. All supervisors and employees will perform their duties in compliance with the required safety codes and standards.

PURPOSE

This Safety, Accident Prevention, and Fire Protection Plan has been compiled to ensure all personnel working on the project are thoroughly aware of the need to eliminate all possible causes of accidents.

SAFETY RESPONSIBILITIES

Safety is the responsibility of management. (Name) _____ (Title) _____, is designated on-site safety representative for (company or firm name) _____. He/she is responsible for administering the safety program this (project name).

Construction superintendents are responsible for continuously checking for and eliminating all possible hazardous conditions. They are responsible for conducting safety meetings and for the constant training of personnel. All personnel must be trained to become aware of unsafe conditions and how to correct them. Any unsafe condition must be immediately corrected or referred to management when corrective action is needed. All required safety equipment, if not provided by the employee, will be supplied by the contractor.

Superintendents will make weekly safety inspections of the entire job, and a record of this inspection will be made available at the job site. Safety statistics will be reported as required by the Department of Labor.

Each employee will be held responsible for performing his or her work in a safe manner. All employees must be ready at all times to correct or report unsafe conditions to their supervisors.

EMPLOYEE TRAINING

Bulletin Board

A bulletin board will be prominently placed next to the contractor's site office or as otherwise directed by the AEDC Project Engineer or Construction Monitor. This board will post the following bulletins:

- Emergency phone numbers: Extension 911.
- Dates and times that Supervisors' Safety Meetings will be held (minimum one per week).

- Dates, times, and places of Tool Box Meetings, and requirements for attendance (minimum one per week).
- The required OSHA announcements and bulletins.
- Miscellaneous safety posters.

Safety Meetings

Safety meetings will be held weekly for all employees. These meetings will be held to educate and train employees and to develop the proper safety attitude in the performance of their jobs. Attendance records will be maintained at the job site.

MEDICAL SUPPLIES AND ASSISTANCE

First Aid Stations

First aid station(s) will be maintained in the work areas. First aid equipment will be inspected regularly for completeness.

Emergency Phone Numbers

The emergency phone number card, in addition to being posted on the project bulletin board, will be posted prominently in work areas and carried in each superintendent's vehicle. Depending on the nature of the accident and the first aid or medical care required, the necessary assistance will be requested by phoning the emergency number indicated on the card.

CONTROLLING CONSTRUCTION AREAS

Contractors will identify and control access to all construction areas by barricading and signage to prevent unauthorized entry, to prescribe required personal protective equipment, and to warn of specific hazards.

PERSONAL PROTECTIVE EQUIPMENT

Personal protective equipment will be worn in compliance with prescribed codes and standards.

- Hard hats will be worn at all times in base industrial and construction areas.
- Eye, ear, and face protection equipment will be worn as required by appropriate safety standards.
- Respiratory protective equipment will be used when personal exposure exceeds acceptable levels. Respirators will be used in accordance with 29 CFR 1910.134, which includes a written respiratory protection program, fit tests records, and employee medical approval.
- Welding shields or goggles will be worn by personnel doing cutting or welding. (Only qualified personnel are to perform such tasks.

- Fall protection equipment will be used when necessary.

EQUIPMENT SAFETY

Motor Vehicles

Operators will inspect vehicles daily before beginning work and at the end of the shift, reporting any obvious areas of possible malfunction (such as brakes or tires). Repairs will be made promptly. Defective vehicles will not be used until repairs are made.

Heavy Equipment

Audible alarms will be installed and maintained on all heavy equipment as specified in OSHA 1926.602. Job superintendents will make daily safety inspections. Operators are responsible for immediately reporting to supervisors any apparent or latent unsafe conditions of the equipment being operated. Job site records will be maintained as required under 29 CFR 1926, Federal OSHA Construction Safety Standards. Of particular interest are the requirements specified in 1926.29, 1926.251, 1926.550, 1926.552, 1926.602, and 1926.701 (although others are pertinent as well).

Hand Tools

All hand tools, whether self-owned or company-furnished, will be maintained in safe condition. Unsafe tools will not be used until repaired.

Guards required on power tools will be used at all times. Constant-pressure switches or controls will be used on all power hand tools. Switch locking devices will be removed. Power grinders will have protective shields.

Electric tools will be grounded using three-prong plugs and receptacles (except for double-insulated tools). All 15- to 20-ampere receptacle outlets on single-phase circuits for the construction site will be protected by ground-fault circuit interrupters.

All gasoline or diesel powered tools and equipment will be stopped during refueling.

FIRE PREVENTION

Hot Work Operations

A USAF Welding, Cutting, and Brazing Permit (AF Form 592) is required for all hot work operations. Hot work operations include cutting, welding, brazing, soldering, thermal spraying, and any similar activity.

Smoking

Smoking is prohibited at or in the vicinity of hazardous operations and combustible or flammable materials. NO SMOKING signs will be posted in these areas. Smoking is not permitted in buildings or government vehicles. Where smoking is permitted, safe receptacles will be provided for smoking materials.

Electrical Sources

All construction operation electrical wiring and equipment for light, heat, or power purposes will be in accordance with pertinent provisions of NFPA 70, National Electrical Code. Temporary lights will be equipped with guards to prevent accidental contact with the bulb. Guards will not be required when the reflectors are constructed with bulbs that are deeply recessed. Temporary lights will not be suspended by their electric cords unless the cords and lights are designed for such suspension. Splices will have insulation equal to that of the cable.

Fire Alarm Reporting

A public fire alarm box and telephone service to the fire department will be readily available near the premises. Instructions will be issued to notify the fire department immediately in case of fire. The local fire department number will be conspicuously posted near each telephone.

Access for Fire Fighting

Access routes for fire fighting equipment will be maintained. Fire hydrants will be kept clear of any obstructions.

Fire Extinguishers

Fire extinguishers will be located on or adjacent to:

- Storage sites of combustibles.
- Fuel dispensing vehicles.
- Sites of hot work operations.
- The supervisor's vehicle.
- The supervisor's office or shed.

In addition, at least one approved extinguisher will be provided in plain sight on each floor at each usable stairway where combustible material could accumulate. Extinguishers will be placed within structures so that the maximum travel distance to an extinguisher is no more than 75 feet.

SANITATION AND INDUSTRIAL HYGIENE

Sanitation and industrial hygiene will comply with these listed standards:

- Toilet facilities will be provided at the work site.
- Where potable water is not available, bottled drinking water and disposable cups will be provided, along with a container for the disposal of used cups. This drinking water will be conveniently placed in the area of the work site.

- Proper ventilation will be maintained in order to avoid possible harmful buildup in areas where toxic fumes, dust, vapors, or gases may be produced. Respiratory protection will be supplied when adequate ventilation cannot be provided.

ACCIDENT REPORTING

Accident reporting must be an individual responsibility. All individuals who are injured must report the accident, however minor, to their immediate supervisor. Supervisors will obtain all pertinent information so that proper forms can be completed in the required number. Supervisors will keep an injury log at the job site

GENERAL AND SPECIAL INSTRUCTIONS

General Instructions

All employees will comply with the following general instructions:

- Employees will comply with this plan, assist other employees in doing so, and report all dangerous conditions or practices immediately to their supervisor.
- All injuries must be reported promptly through the regular chain of supervision. Foremen and supervisors will be responsible for making proper reports to the contractor's company office.
- Should injuries occur, the first step is always to provide medical care for the injured (emergency care, transport, etc.) and to immediately eliminate any apparent cause of the Injury. If a cause is not apparent, the work area and equipment must be secured until the cause is determined by qualified authorities.
- Should a serious accident occur, subcontractor management and the AEDC Project Engineer or Construction Monitor must be notified immediately.
- No one will be permitted to work while his ability or alertness is impaired by illness, fatigue, medication, illegal drugs, or other causes.
- Reporting to work under the influence of alcohol, stimulants, tranquilizers, or barbiturates--or using them during work hours--will be cause for termination.
- No guard, safety device, or appliance may be removed from tools, machinery, or equipment except for the purpose of making repairs. Such removal will only be done by persons qualified to make the repair, and they will first lock out/tag out any power source and have the tool, machinery, or equipment in a safe area.
- Employees will not handle electrical equipment, machinery, vehicles, or air and water lines in a manner outside the scope of their regular duty except with specific instructions from their supervisors.
- Employees will not enter trenches, ditches, or any other subsurface area without specific instructions from their supervisors.

- Employees will not enter or work in confined spaces (such as tanks, vaults, holds, or manholes) without specific instruction from their supervisors. All confined-space entries will be made in accordance with the provisions of AEDC Safety Standard B5 (available through the Project Engineer or Construction Monitor). The Construction Monitor must be notified at least five working days before entry is made.
- If employees observe sandblasting dust, asbestos fibers, smoke, or other possibly dangerous pollutants in the air of a work space, they should contact their supervisor for instructions.
- While handling hazardous chemicals or solvents, employees will follow directions and comply with any warnings or cautions affixed to the labels. Any questions concerning the use of such chemicals and personal protective equipment required will be directed to the supervisor.
- Flammable or combustible solvents will not be used for cleaning purposes without specific instructions from the supervisor, and such instructions will include the site and conditions for such use.
- The supervisor will have on site the MSDS for all chemicals, flammables, solvents, paints, and other hazardous products used on the project.

Personal Protective Equipment

- Supervisors and foremen are responsible for providing all employees with directions about employer-provided and employee-provided protective equipment necessary for each operation.
- Non-conductive safety hats will be worn at all times on the construction site, except in administrative areas.
- Strong nonslip gloves are recommended for all workers, except when wearing them could create greater risks.
- Eye protection must be used by all employees while performing any operation in which a hazard to the eye exists. Examples of such operations are welding, cutting, burning, sandblasting, grinding, hammering, and the use of pneumatic impact tools.
- If respiratory protection is required, usage of respirators must comply with 29 CFR 1910.134.

Ladders

- No employee may use a ladder that is defective or does not meet ANSI requirements.
- Wooden ladders will not be painted. They may be treated with linseed oil.
- Splicing of ladders is prohibited.

- Work will be arranged so that employees are able to face ladders and use both hands while climbing.
- The use of ladders to transport heavy or awkward-shaped items is prohibited.
- Stepladders must never be used as straight ladders. They must be fully opened at all times except when in storage. Employees will not be allowed to stand on the top step or end cap of stepladder.

Scaffolding

- All scaffolding will conform to 29 CFR 1926.451 (Federal OSHA Construction Safety Standards).
- All job site supervisors and foremen must be advised of their responsibility for the safety of their personnel when assigning personnel to work on or off scaffolding.
- It is imperative that the designated contractor safety representative make daily safety inspection of all scaffolding before use. Written records of such inspections will be maintained.
- If several crafts are using sections of the scaffolding simultaneously, it may be necessary to inspect the scaffolding more frequently.
- Scaffolding inspection will include, but not be limited to, base plates, sills, bracing, tie-ins, planking, access ladders to working levels, guard rails (handrail, midrail, and toeboard), anchorage to building structure, and plumb scaffold

Machinery and Vehicles

- Unless it is part of their regular duties, for which they have had adequate training, no employees may operate machinery or equipment without specific instructions and guidance. Only licensed operators will operate vehicles.
- Vehicles and equipment will be adequately secured against accidental or unauthorized starting or movement when not in use. Keys will be removed from vehicles and the doors will be locked at the end of the workday and placed in a secure area designated by the site safety representative.
- Operators must examine their equipment before starting and observe it carefully during use, reporting immediately any malfunction or deviation from safe performance.
- Floors and decks of equipment must be kept clean and free of anything that might cause slipping, tripping, or a falling hazard.
- The need for servicing or repairs will be reported to the supervisor. No repairs or adjustments will be made on units during operation. No lubrication will be performed on units during operation except those on which the manufacturer has installed safeguards specifically for the protection of the person doing the lubrication.

- Working under suspended loads is forbidden.
- Employees are prohibited from riding booms, loads, slings, hooks, or lift-truck forks or platforms.
- Air hoses must not be disconnected until they are bled and pressure is securely turned off at its source. All air hoses will meet the requirements of 29 CFR 1926.302h (Federal OSHA Construction Safety Standards).
- Employees must inspect all backfill areas before starting backfill operations.
- Adequate devices will be worn for protection of hearing by operators or employees working near units producing noise levels in excess of prescribed standards.
- No vehicle will be operated in a reckless or careless manner or at a speed that is not reasonable and proper with regard to weather, traffic, surface condition, visibility condition, load, or type of vehicle.
- Cranes and aerial baskets will be inspected as required and inspection records maintained on site.
- All vehicular accidents that occur on the AEDC site, of whatever size and nature, whether injury or non-injury, must be reported immediately to the Security Police (Ext. 5662).
- Caution must be taken to make sure that no one is below when equipment is used near tops of cuts, banks, or inclines.
- Special care, and an observer(s) with whom effective communication has been set up, will be used where there is a possibility of overturning equipment (for example, near tops of cuts, banks, inclines, deep fills, or soft or muddy terrain).

Welding & Cutting--General

- Only trained employees, whose regular duties as assigned by their supervisors include welding and cutting, will perform this work.
- Only standard, approved equipment will be used.
- Fire extinguishers will be easily accessible to all employees performing welding or cutting operations.
- Screens or shields will be provided for the protection of persons or combustible material exposed to sparks or falling objects; a fire-watch will be posted where necessary, with an adequate extinguisher and signaling device.
- When working on lead, zinc, or other material could generate harmful fumes, adequate ventilation and exhaust devices will be provided. When ventilation is not practical or feasible, respiratory protection will be used.

- The designated safety representative or foreman will inspect the work site before any use of welding or cutting equipment to ensure that all combustibles in the work area have been removed or otherwise protected from the welding or cutting work. The designated safety representative will also ensure that a current USAF Welding, Cutting, and Brazing Permit (AF Form 592) for hot work is in effect at the designated job site.

Arc Welding

- Frames of welding machines operated from electric power sources must be properly grounded.
- When welding, employees must wear adequate masks or hoods with proper eye protection, gloves, and leather aprons as minimum protection; these will be supplemented with hard hats, safety shoes, and other protective gear where warranted.
- All employees and passersby near the welding area will be protected from eye flash burns by use of partitions, screens, or other appropriate methods.
- Welding cables, cords, and leads must be neatly secured so as not to cause tripping.
- Electrode stubs will immediately be disposed of in a safe container.

Oxygen/Acetylene Welding and Cutting

- Cylinders must never be dropped or struck.
- Cylinders must be stored away from any source of heat.
- Where stored in the open, cylinders must be protected from continuous sunlight.
- Oxygen cylinders must be stored at least 20 feet away from those containing any fuel gas.
- Where stored inside, oxygen cylinders must be separated from those containing fuel gases by a five ft.-high, noncombustible barrier with a fire rating of at least one-half hour, or they must be separated by a 20-ft. distance.
- Cylinders will be stored vertically and chained to prevent them from falling over.
- Cylinders will never be lifted by machinery unless they are in a safe stand or cradle or are otherwise positively secured against falling or being dropped.
- Special arrangements will be made to secure cylinders while they are being transported. Carrying them loose on the back of a truck or in a pickup is prohibited.
- Caps will be firmly screwed onto cylinders except when the cylinders are connected to regulator during use.

- Oxygen cylinders will be kept free from oil or grease. Use of oil or grease as a lubricant for oxygen valves or attachments is prohibited.
- Smoking or flame is prohibited near welding gas cylinders or outlets.
- Field repair of gauges, valves, accessories, or safety devices is prohibited.
- Acetylene must not be used for welding or cutting at pressures exceeding 15 psig.
- Acetylene cylinder valves will not be opened more than one full turn, and the wrench will be left on the valve stem so that the valve can be closed quickly if necessary.
- Oxygen cylinder valves will be opened fully and made hand-tight against the back seat. This takes the high-range cylinder pressure off the packing.
- Mixing gases in cylinders, refilling cylinders, or using cylinders for any use except their original purpose is prohibited.
- It is permissible to close torch valves alone when work is briefly suspended and the operator is nearby. Any other interruption of use (e.g., if one cylinder becomes empty) necessitates closing the cylinder valves, followed promptly by opening the torch valves to purge lead-hoses and releasing the regulator screws
- Hoses must never be hung from regulators, other equipment, or the cylinder tops.

Excavation, Trenching, and Shoring

- All excavation, trenching, shoring, and backfilling will be in accordance with 29 CFR 1926, specifically Subpart P, copies of which will be available at the construction site. Superintendents and foremen will be familiar with these regulations and will direct workers accordingly. Any excavation or trench that is five feet or more deep will comply with the standards established by 29 CFR 1926.

Fall Protection

All floor or wall openings and platforms that expose workers to a fall of more than four feet will be covered or protected by guardrails.

Fall protection equipment (e.g., safety belts, body harnesses, lanyards, and lifelines) approved under 29 CFR 1926.104 and 29 CFR 1910 will be made available to and worn by all workers exposed to an unprotected fall of more than 10 ft.

PRESCRIBED CODES, STANDARDS

All work performed will be in accordance with the requirements of the latest edition of the following codes and standards, which will be considered minimum requirements:

- US Army Corps of Engineers: USACE EM385-1-1 Safety and Health Requirements Manual
- 29 CFR 1926, Safety and Health Regulations for Construction, Department of Labor (OSHA).
- 29 CFR 1910, Occupational Safety and Health Standards, Department of Labor.
- American National Standards Institute (ANSI), as applicable.
- National Fire Codes (NFPA).
- National Electrical Code (NEC-NFPA).
- Any amendment or other safety codes applicable to the task being performed.

APPENDIX B

SUBCONTRACTOR PRE- JOB CHECKLIST

SUBCONTRACTOR PRE- JOB CHECKLIST

Company Name: _____

P. O./Subcontractor: _____

On-Site Construction: _____

Job

Description: _____

This checklist consists of Occupational Health and Safety Administration (OSHA) items that are most often overlooked by subcontractors when performing work at AEDC. These items and all other (OSHA) requirements in the contractual documents will be enforced. The N/A (not applicable) column indicates that the particular item does not apply to the jobs being performed under this subcontract. Answer all questions with a check mark (I) in the appropriate column.

I. MANDATORY REQUIREMENTS-ALL PROJECTS, GENERAL. THE CONTRACTOR MUST-	project.	1. Will the contractor use ladders on this project? YES () NO ()
1. *Have Code of Federal Regulations (29 CFR 1926, OSHA) on job site.	13. Provide and require the wearing of appropriate personal protective equipment in all operations where workers are exposed to hazardous conditions or where it is needed to reduce the hazard exposure to workers.	If yes, requirements a through d apply.
*Construction Safety Regulations Part 1926 are available at no cost from the US Dept of Labor, Office of Safety and Health.	II. INDUSTRIAL SAFETY	a. Use and store ladders in accordance with 1926.450.
2. Display all required OSHA notices.	A. Hand and Power Tools	b. Ladders to be used for electric work must be nonconductive in accordance with 1926.450a-11.
3. Provide for frequent and regular inspections of job sites, materials, and equipment to be made by competent persons (1926.20) a. The contractor is responsible for initiating immediate corrective action for any deficiencies noted during these inspections and are for unsafe conditions and practices brought to his attention. b. The contractor must immediately stop any activities considered to be eminently hazardous.	1. The contractor must inspect all tools and repair or replace tools with burrs, mushroom heads, and broken or damaged handles, and grips on files and rests, etc., in accordance with 1926.301.	c. Submit a list of the kind and height of ladders to be used on the job site, e.g., extension ladders, job-made ladders.
4. Provide AEDC medical emergency telephone number – 911 Fire and Ambulance – in a conspicuous location at the site.	2. Will the contractor use electrically powered tools on this project? YES () NO ()	d. Repair defective ladders immediately or remove them from the AEDC site or construction site.
5. Provide for orientation and training of employee in accordance with 1926.21.	If yes, the following requirements apply:	C. Scaffolds
6. Provide first aid supplies and qualified personnel to administer first aid at job site in accordance with 1926.50.	a. Install ground-fault circuit interrupters on all electrical power sources in accordance with the latest edition of the National Electric Code. b. Ground all extension cords, outlets, and electrical tools in accordance with 1926.404.	1. Will the contractor use scaffolds on this project? YES () NO ()
7. Comply with housekeeping requirements (1926.25).	3. Equip all power tools with guards in accordance with 1926.300-304.	If yes, requirements a through d apply.
8. Comply with all sign and tag requirements (1926.200).	4. Will contractor use power-actuated tools on this project? YES () NO ()	a. The construction and erection of scaffolding must be in accordance with 1926.431.
9. All construction projects at AEDC are "Hard Hat Construction Sites" and hard hat signs must be posted.	If yes, these tools must be operated in accordance with 1926.302e. Eye and ear protection must be worn. Contact Contractor C Safety for explosive symbols and site requirements.	b. Submit a list of the kinds of scaffolding and working heights, e.g., wood tubular, rolling, suspended, spiders, sky climbers, aerial lifts.
10. Ensure lighting of construction area, ramps, runways, corridors, offices, shops, and storage areas while any work is in progress (1926.28).	B. Ladders	c. Scaffolds must be equipped with guardrails consisting of a toprail, midrail, and the toeboard.
11. Ensure that workers on construction projects wear hard-toes shoes (1926.28).		d. Scaffolds must be secured every 26 ft. in height and 30 ft. in length.
12. Obtain AEDC Burning/Welding permit for welding or burning operations before start of		D. Roofing/Roof Work

<p>1. Will the contractor be using hot asphalt or pitch on the roof?</p> <p>YES () NO ()</p> <p>If yes, requirements a through f apply.</p> <p>a. Roofing and rooftop work must be performed in accordance with 1926.500 (g).</p> <p>b. Employees engaged in rooftop work must be protected from falling from unprotected sides and roof edges by one or a combination of the following:</p> <ul style="list-style-type: none"> • A motion-stopping safety system (MSS system). • Warning lines erected not less than 6 ft from roof edge. • A safety monitoring system. <p>c. Employees involved in handling materials at an unprotected roof edge must be protected from falling by a MSS system.</p> <p>d. Guardrails must be erected a minimum of 4 ft on each side of the access point through which materials are hoisted.</p> <p>e. Materials must be stored a minimum of 6 ft from the roof edge.</p> <p>f. Ladders used to access rooftops must conform to 1926.450.</p> <p>E. Hoists, Cranes, Elevators, Manlifts, Cherry-Pickers, Loaders</p>	<p>G. Steel Erection and Assembly</p> <p>1. All work must be in accordance with 1926.750 through .752. Working on or off elevated surfaces must be in accordance with 1926.104 and .105.</p> <p>2. Before beginning work, submit a Fall Protection Plan, indicating the kind of work, heights involved, and fall protection equipment to be used, including for protection of personnel working below (e.g, safety nets, debris nets).</p> <p>H. Personnel Protective Equipment</p> <p>1. Will the work performed under this project involve hazards that require the use of any of the protective equipment listed below?</p> <p>YES () NO ()</p> <p>If yes, check the equipment that will be used on this job. Equipment must be used in accordance with the referenced CFR section.</p> <p>HARD HATS, 1926.100</p> <p>GOGGLES, 1926.102</p> <p>FACE SHIELDS, 1926.102</p> <p>WELDERS HOOD AND GOGGLES, 1926.102</p> <p>EYE PROTECTION FOR WELDER'S HELPERS, 1926.102</p> <p>RESPIRATORS, 1926.103</p> <p>EAR PLUGS OR EAR MUFFS, 1926.101 AND 103</p> <p>SAFETY BELTS, LANYARDS, LIFELINES, ETC., 1926.104</p>	<p>2. Sanitation</p> <p>a. An adequate supply of drinking water, cups, and a waste receptacle must be provided.</p> <p>b. Toilets must be provided in accordance with 1926.51(c).</p> <p>c. Washing facilities must be provided as outlined in 1926.51(f).</p> <p>3. Will contractor use chemicals such as paints, solvents, adhesives, or other hazardous materials on the job?</p> <p>YES () NO ()</p> <p>If yes, answer questions a through g.</p> <p>a. Submit a list of these materials and attach Material Safety Data Sheets.</p> <p>b. Are Material Safety Data Sheets provided for all employees using these materials?</p> <p>YES () NO ()</p> <p>c. Are all employees using these materials trained in safe handling?</p> <p>YES () NO ()</p> <p>d. Is sufficient ventilation being provided to control airborne concentrations of hazardous materials?</p> <p>YES () NO ()</p> <p>e. Will respiratory protective equipment be provided for work where hazardous airborne materials are present?</p> <p>YES () NO ()</p> <p>If yes, attach a detailed description.</p> <p>f. Will adequate skin and eye protection be provided?</p> <p>YES () NO ()</p> <p>If yes, attach a detailed description.</p> <p>g. Will the contractor be using coal tar products?</p> <p>YES () NO ()</p>
<p>F. Excavation, Trenching, and Shoring</p> <p>1. Will the contractor be doing any excavation, trenching, or shoring on the project?</p> <p>YES () NO ()</p> <p>If yes, 1926.650 through .653 and requirements a through e apply.</p> <p>a. Prior to excavation attempts must be made to locate underground utilities.</p> <p>b. Submit detailed specifications to AEDC on all jobs requiring shoring before starting any excavation.</p> <p>c. Use lighted barricades on all roadways.</p> <p>d. Barricading trenches at AEDC will conform to AEDC standards.</p> <p>e. Equip all personnel bridges over trenching or excavation with safety railing.</p>	<p>III. INDUSTRIAL HYGIENE</p> <p>1. Will the contract be working in a confined space (including manholes) where combustible, toxic, or other hazardous materials are present?</p> <p>YES () NO ()</p> <p>If yes, requirements a through d apply.</p> <p>a. Perform work in accordance with AEDC Safety Standard B5, Confined Spaces.</p> <p>b. Use supplied airline masks in confined areas such as manholes or for sandblasting or similar activities (1926.28)</p> <p>c. Use portable ventilation blower equipment in confined spaces and where combustible vapors or gases are present.</p> <p>d. Arrange entry through Area Supervisors or Project Manager five working days before the entry.</p>	<p>4. Will workers be exposed to excessive noise levels (85 dBA) for more than 8 hours?</p> <p>YES () NO ()</p> <p>If yes, attach a description of noise sources and the hearing protection to be used.</p> <p>5. Will visible airborne soil and cement dust be generated?</p> <p>YES () NO ()</p> <p>a. If yes, will watering be used to control dust.</p> <p>YES () NO ()</p> <p>b. Will respirators be used to control worker exposures?</p> <p>YES () NO ()</p>

<p>6. Will the contractor be using sandblasting equipment?</p> <p>YES () NO ()</p> <p>If yes, the contractor must provide and use appropriate personnel protective equipment in accordance with 1926.28.</p> <p>(Attach a description.)</p>
<p>7. Will the contractor work with asbestos?</p> <p>YES () NO ()</p> <p>If yes, the provision of 1926.58 apply.</p>
<p>IV. FIRE PROTECTION AND PREVENTION</p>
<p>Will the following be available as needed.</p> <p>1. Fire Extinguishers located YES NA in or at –</p> <p>a. Construction offices, _____ sheds, etc.</p> <p>b. Scene of hot work, torch, _____ welding, soldering.</p> <p>c. Roofing operations (at tar pot _____ and on roof)</p> <p>d. Flammable liquid and gas _____ storage areas.</p> <p>NOTE: C and D require a fire extinguisher at 20BC as a minimum.</p>
<p>2. No smoking signs in these areas: YES NA</p> <p>a. Flammable liquid and gas _____ storage areas</p> <p>b. Spray painting operations _____</p> <p>c. Equipment refueling areas _____</p>
<p>3. Approved metal safety cans for all flammable and combustible liquids?</p> <p>YES () NO ()</p>
<p>4. Will the contractor be welding or using cutting torches?</p> <p>YES () NO ()</p> <p>If yes, and indoors, attach a description of the ventilation system.</p>
<p>5. A fire extinguisher rated not less than 2A must be provided for each 3,000 square feet (1926.150cc).</p>
<p>V. Radiation Safety</p>
<p>1. Will Radiography be performed, radioactive materials or ionizing radiation sources be used?</p> <p>YES () NO ()</p> <p>If yes, AEDC Contractor Safety must be notified immediately before use compliance with 1910.95 and 10CFR is required.</p>

SIGNATURE:	DATE:
For AEDC use only – Hazards Control Review	
This Checklist is	Satisfactory () Unsatisfactory ()

By: _____	
Buyer: _____	Inspector: _____ Date: _____